

REMARKS

Claim Rejections Under 35 U.S.C. §112

Claims 71-78 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter regarded to be the invention. Claims 71, 72 and 73 have been amended to refer to the memory card connector that is adapted to be received by a host system instead of reciting “a host” multiple times. The basis of this rejection is therefore believed to have been overcome.

Claim Rejections Under 35 U.S.C. §102

Claims 51, 52, 54, 56, 57, 59, 60, 62, 68 and 69 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,018,017 to Sasaki et al. (“Sasaki”). No amendments to these rejected claims are being made except to write several of them in independent form and, as a consequence of this, changing the dependency of some of the other claims. Each of these claims is limited to the decoding information stored on the memory card including a decoding algorithm, a decompression algorithm or a decryption algorithm. Because of these limitations, the rejection of the claims as being anticipated by Sasaki is respectfully traversed.

The Office Action alleges (p. 4, lns. 10-12) that Sasaki discloses that the decoding information stored on memory card 15 includes “a decompression/decryption algorithm/key/driver useful to decode the encoded data,” referencing column 12, line 5 of Sasaki. This portion of Sasaki states that “the type of compression mode” is read from the memory card along with image data. The same allegation is repeated (Office Action, p. 5, lns. 11-15), this time referencing column 9, lines 22-26 of Sasaki. This later portion of Sasaki explains that this compression mode type information is stored on the memory card as a 3-bit binary code. Other portions of Sasaki describe more about this compression mode code. It is respectfully submitted that this code is not any of the decoding, decompression or decryption algorithm specified in the rejected claims.

Whether the image data are stored in the memory card 15 with compression or not is selected by the switch 31₅ (Figure 6B) of Sasaki’s camera. If compressed data are chosen, the switch 31₅ further selects one of two modes of compressed data for storage. Compression of the image data is performed by the circuit 31₄ (Figure 6B). The image data are stored on the

memory card 15 through the switch 31₅ and buffer memory 31₆. Sasaki's switch 31₅ selects image data in one of modes A, B, C or D. (Sasaki, col. 9, lns. 7-21.) Modes A and B cause uncompressed data to be stored on the memory card 15, where image data are stored from circuits preceding the data compression circuit 31₄. Modes C and D select compressed data from the output of the compression circuit 31₄ for storage on the memory card 15, mode C with 4-bit samples and mode D with 2-bit sampling by the data compression circuit 31₄. The selected data mode A, B, C or D is then also stored on the memory card 15 along with the data.

The key point is that in Sasaki, no algorithm for decoding, decompressing or decrypting data stored on the memory card 15 is stored on the memory card. The stored 3-bit code only designates the compression mode of data selected from the compression circuit 31₄ by the switch 31₅ (camera of Figure 6B), if any, and is not an algorithm by which the data may be decoded, decompressed or decrypted, as claimed. Therefore, Sasaki is respectfully submitted to clearly not anticipate the subject claims.

In order to make of record in the file of this application the definition of "algorithm" that one ordinarily skilled in the art would have used when reading the present application and the Sasaki reference, the following are given (copies of pertinent pages being filed herewith):

1) *The American Heritage Dictionary of the English Language*, Third Edition, Houghton Mifflin Company, 1992:

"n. Mathematics. A step-by-step problem-solving procedure, especially an established, recursive computational procedure for solving a problem in a finite number of steps.

[Variant (probably influenced by ARITHMETIC) of ALGORISM.]"

2) *IEEE 100, The Authoritative Dictionary of IEEE Standards Terms*, Seventh Edition, Standards Information Network, IEEE Press, 2000:

"algorithm (general) A prescribed set of well-defined rules or processes for the solution of a problem in a finite number of steps; for example, a full statement of an arithmetic procedure for evaluating $\sin x$ to a stated precision."

3) From Wikipedia, the free on-line encyclopedia at *wikipedia.org*, 2006:

“In mathematics and computer science, an **algorithm** is a procedure (a finite set of well-defined instructions) for accomplishing some task which, given an initial state, will terminate in a defined end-state.”

From this it is seen that the term “algorithm” has meant the same thing over the years from before the earliest effective filing data of the present application to the present time. It is a procedure for solving a problem, particularly a computational procedure involving a number of steps. Sasaki’s 3-bit compression mode binary number is certainly not an algorithm. It identifies a characteristic of the data stored on the card: whether that data are compressed or not, and, if compressed, whether 2 or 4 bit sampling is used. Sasaki’s 3-bit compression mode binary number is not a procedure for solving a problem, namely a procedure for decompressing the compressed data stored on the card.

Dependent claim 62, also rejected as anticipated by Sasaki, additionally recites that the encoding or decoding is accomplished in a memory controller on a mother card separate from the memory card. The Office Action (p. 7, first paragraph of section 12) expressly recognizes that this feature is not disclosed by Sasaki, so cites a second reference against other claims including the same feature as part of an obviousness rejection (discussed below). It appears that the rejection of claim 62 over Sasaki alone was therefore inadvertent and that claim 62 should have been included with the rejection of claims as obvious. In any event, it is clear that claim 62 is not anticipated by Sasaki, and is submitted to be patentable for the same reasons discussed above for its parent claims, and, in addition, for the reasons given below.

Claim Rejections Under 35 U.S.C. §103

Claim 58 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Sasaki. Since this claim is now dependent only upon claims discussed above that specify the information stored on the memory card to include a decoding algorithm, it is believed to be patentable for the same reasons discussed above.

Claims 61, 63-66, 71-82 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Sasaki in view of U.S. Patent No. 5,829,014 to Hayashi (“Hayashi”). This

rejection is respectfully traversed, for the reasons given below. The claim groupings below generally follow those used in the Office Action.

Claims 61 and 63-66

It is initially noted that rejected claim 61, by its dependency upon claims discussed above to not be anticipated by Sasaki, is believed to be allowable both for the reasons given for those parent claims and for the reasons given below.

Each of the claims 61 and 63-66 recite a method of using a two-card system to store and use encoded data, a mother card containing a memory controller and a connectable memory card. Each of these claims specifies that either the encoding of data stored in the memory card or the decoding of data read from the memory card is performed within the mother card. Sasaki performs data compression in the host camera and then stores the compressed data in the memory card. It is respectfully submitted that there is nothing in the secondary Hayashi reference that suggests moving the encoding (compression) function from the host of Sasaki into the controller card of Hayashi. There is no combination of Sasaki and Hayashi, even in hindsight, which suggests encoding or decoding data in the mother card. Each of the claims 61 and 63-66 are limited to encoding or decoding the data in the mother card. For this reason alone, it is respectfully submitted that the obviousness rejection of these claims cannot stand.

Hayashi at most suggests breaking the memory card 15 of Sasaki into two cards, one containing the memory and the other the controller. The use of a card for the controller that is separate from a card containing the memory is only incidentally mentioned at the end of the Hayashi specification as an alternative to its described embodiments; no disclosure of how such a two-card system would be built or used is contained in either reference. For the purpose of argument, the most that a combination of these references could have suggested is that Hayashi's two-card system be substituted for the single card of Sasaki. It is respectfully submitted that nothing in either reference suggests or even hints of decoding data in Hayashi's separate controller card. Claims 61 and 63-66 must therefore be allowed over these references.

The Office Action alleges, however, with respect to claim 61 that Hayashi teaches use of its memory controller adapter "to encode data" and that this mother card is "being used to encode data" (p. 7, lns. 12, 17). With respect to claims 63-65, it is stated that "decoding the read encoded user data within the controller function of the mother card" is not disclosed in Sasaki,

inferring (but not expressly stating) that this is disclosed by Hayashi (Office Action, p. 9, lns. 3-4, 16). For claim 66, Hayashi is said to teach “the mother electronic card including a memory controller function being used to encode data” (Office Action, p. 10, lns. 2-3). These statements as to the content of Hayashi are respectfully submitted to be clearly in error. No specific reference to a location in Hayashi is made in the Office Action to support these allegations of Hayashi’s teaching, and none can be found. Without a suggestion in at least one of the cited references to decode the data in a separate controller card, the obviousness rejection cannot stand.

There are further limitations in the independent claims 63 and 66 that are not present in any conceivable combination of features of the cited Sasaki and Hayashi references, even if made in hindsight. Claim 63 specifies encoding the data in a first host, storing the encoded data on the memory card and then decoding the data in a mother card that is connected to a second host. Claim 66 recites the reverse: encoding the data in the mother card when connected to a first host, storing the encoded data on the memory card and then decoding the data in a second host to which the memory card is connected. It is respectfully submitted that, no matter how the pieces of Sasaki and Hayashi may be combined together, these claimed uses of the memory card and hosts will be missing. Claims 63-66 call for either encoding or decoding data on the mother card in combination with respectively decoding or encoding that data on a host system to which the memory card is connected. The Office Action again alleges that these combinations are disclosed by the cited references but without any specific reference to any portion of them, and no such disclosure can be found. It is respectfully submitted, therefore, that claims 63-66 cannot be rendered obvious by these cited references for these additional reasons.

Claims 71-78

Independent claim 71 and its dependent claims 72-78, directed to a memory system card, have also been rejected on the ground of obviousness over the cited Sasaki and Hayashi references. It is stated in the Office Action that Sasaki lacks disclosure of the encoder and decoder being built into the memory card as claimed but that Hayashi describes a mother card “including a memory controller function being used to encode data and store encoded data in the memory card” (Office Action, p. 11, lns. 10, 11). No citation appears in the Office Action to any portion of the Hayashi patent that discloses this quoted subject matter, and such disclosure

cannot be found. This alone is respectfully submitted to compel withdrawal of the obviousness rejection of claims 71-78.

Hayashi only briefly mentions (col. 7, lns 50-56) the possibility of an adapter containing the data processor 12 and controller 18 of the memory card 10, as an alternative to the earlier 7+ columns of description of the memory card. Sasaki clearly describes that data encoding and decoding are performed in a host to which a memory card is connected. Nothing can be found in the brief controller adapter disclosure of Hayashi that would have suggested that the data encoding and decoding functions be moved from the host of Sasaki into its memory card. It is therefore respectfully submitted that, since neither reference discloses a memory card including a data encoder and decoder, claims 71-78 are allowable.

In addition, dependent claim 77 specifies that the decoding algorithm is stored in the memory, so is patentable for this additional reason, as discussed above with respect to claims 51, 52, 54, 56 and others.

Claims 80 and 82

With regard to system claims 79-82 that were rejected as obvious on the same grounds as claim 63, claim 80 has been re-written in independent form, claim 82 amended to depend from claim 80 and claims 79 and 81 are being cancelled. There has been no change in the scope of claim 80, which is respectfully submitted to be patentable for its recitation of a decryption algorithm being stored in the memory along with the encrypted data. The Office Action (p. 13, lns. 3-4) alleges that Sasaki describes a decryption algorithm stored in the memory along with the encrypted data but this is respectfully submitted to be incorrect, as discussed above with respect to claims 51, 52, 54, 56 and others.


New Claims

New claims 83 and 84 are respectively dependent on independent claims 63 and 66, so are believed patentable for the same reasons discussed above for claims 63 and 66. The new claims each add the feature of a decoding algorithm being stored on the memory card along with the encoded data, the patentable feature discussed above with respect to claims 51, 52, 54, 56 and others. The new claims are also believed to be patentable for this additional reason.

Conclusion

Accordingly, it is believed that this application is now in condition for allowance and an early indication of its allowance is solicited. However, if the Examiner has any further matters that need to be resolved, a telephone call to the undersigned attorney at 415-318-1163 would be appreciated.

Respectfully submitted,



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